

PATENT ABSTRACTS OF JAPAN

(11) Publication number : 61-241712

(43) Date of publication of application : 28.10.1986

(51) Int.CI.

G02B 6/34

G02B 6/12

(21) Application number : 60-083161

(71) Applicant : MATSUSHITA ELECTRIC IND CO LTD

(22) Date of filing : 18.04.1985

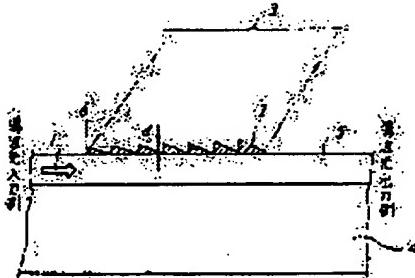
(72) Inventor : SHIONO TERUHIRO
SETSUNE KENTARO
YAMAZAKI OSAMU

(54) INPUT-OUTPUT DEVICE FOR GUIDED LIGHT

(57) Abstract:

PURPOSE: To improve the input-output characteristic of the titled device, by changing the depth of a grating forming a grating coupler.

CONSTITUTION: An optical wave guide 5 is formed on a base plate 4 made of sapphire by using a PLZT thin film and a grating coupler 2 is formed on the wave guide 5 to have a saw-tooth-like cross section by using an electron beam resisting PMMA. In this case, depths (d) of the grooves of the grating 6 are not the same, but gradually increased from the input side of guided lights 1, for example, from $0.01\mu m$ to $0.07\mu m$. Therefore, the distribution of output light 3 to the outside can be made almost flat. In addition, when the changing rate of the depths (d) of the grooves is changed, the intensity distribution of the output light 3 can be controlled and, even in a case where light is inputted in the grating coupler 2, the input efficiency can be improved.



LEGAL STATUS

[Date of request for examination]